

Notice of Allowability

Application No.

10/709,252

Applicant(s)

FULGHUM ET AL.

Examiner

Sherry L. Estremsky

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed April 23, 2004.
2. ☒ The allowed claim(s) is/are 1-10.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

To shorten the abstract to the required limit of 150 words and to remove claim terminology from the abstract ("said"), the application has been amended as follows:

The abstract has been replaced with the following:

An apparatus and method for a floor maintenance vehicle comprises a transaxle rear drive system and a powered front wheel steering system; and a joystick control system providing integrated control of the transaxle rear drive system and the powered steering system by controlling the traverse speed of the transaxle drive with respect to the steering angle such that the sharper the steering angle the lower the maximum traverse speed. A joystick control process for controlling a floor maintenance vehicle comprises receiving a turn signal to a steering control function from a joystick representing an operator desired turn angle, and outputting from the steering control function a turn angle signal; and receiving a speed signal to a traverse control function from a joystick representing an operator desired speed, and receiving the turn angle signal and outputting a transaxle speed control signal based on the speed signal and the turn angle signal.

2. The following is an examiner's statement of reasons for allowance:

No reference nor combination of references was found which teaches a floor maintenance vehicle including a joystick control system which controls a traverse speed of a transaxle rear drive with respect to a steering angle of a front wheel such that the sharper the steering angle the lower the maximum traverse speed, as required by claim 1.

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No reference nor combination of references was found which teaches a joystick control process including a traverse control function communicably linked to a steering control function and receiving a speed signal indicative of an operator desired speed and a turn angle signal from the steering control function and outputting a transaxle speed control signal based on the speed signal and turn angle signal, as required by claim 7.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent 5,923,096 (Manak) July 1999 - discloses a vehicle with steered front wheels and driven rear wheels controlled by a joystick control system with an independent steering control function and traverse control function.

U. S. Patent 6,371,228 (Husted et al.) April 2002 - discloses a vehicle controlled by joystick, specifically a low speed vehicle, with the object being to increase stability and maneuverability. The rear wheels do both the steering and driving.

U. S. Patent Application Publication 2002/0027039 (Kreuzer) March 2002 - discloses a vehicle with steering which may be controlled by a joystick. The steering angle is limited by the vehicle speed.

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U. S. Patent Application Publication 2003/0019682 (Schaedler et al.) January 2003 - discloses a vehicle with steered front wheels and driven rear wheels controlled by a joystick control system with an independent steering control function and traverse control function.

U. S. Patent Application Publication 2004/0267411 (Mayer et al.) December 2004 - discloses a vehicle in which steering and drive may be controlled by a joystick. Teaches that the vehicle speed should be limited to a relatively small value to keep the risk of damage as low as possible.


U. S. Patent Application Publication 2005/0256620 (Kato et al.) November 2005 - discloses a vehicle in which the steering may be controlled by a joystick. The steering angle of the steerable wheels is prevented from increasing abruptly to prevent the vehicle from rolling excessively.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherry L. Estremsky whose telephone number is (571) 272-7090. The examiner can normally be reached on Tuesday and Friday from 7:30 a.m. to 6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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SHERRY ESTREMSKY
PRIMARY EXAMINER
AU3681 12-9-05